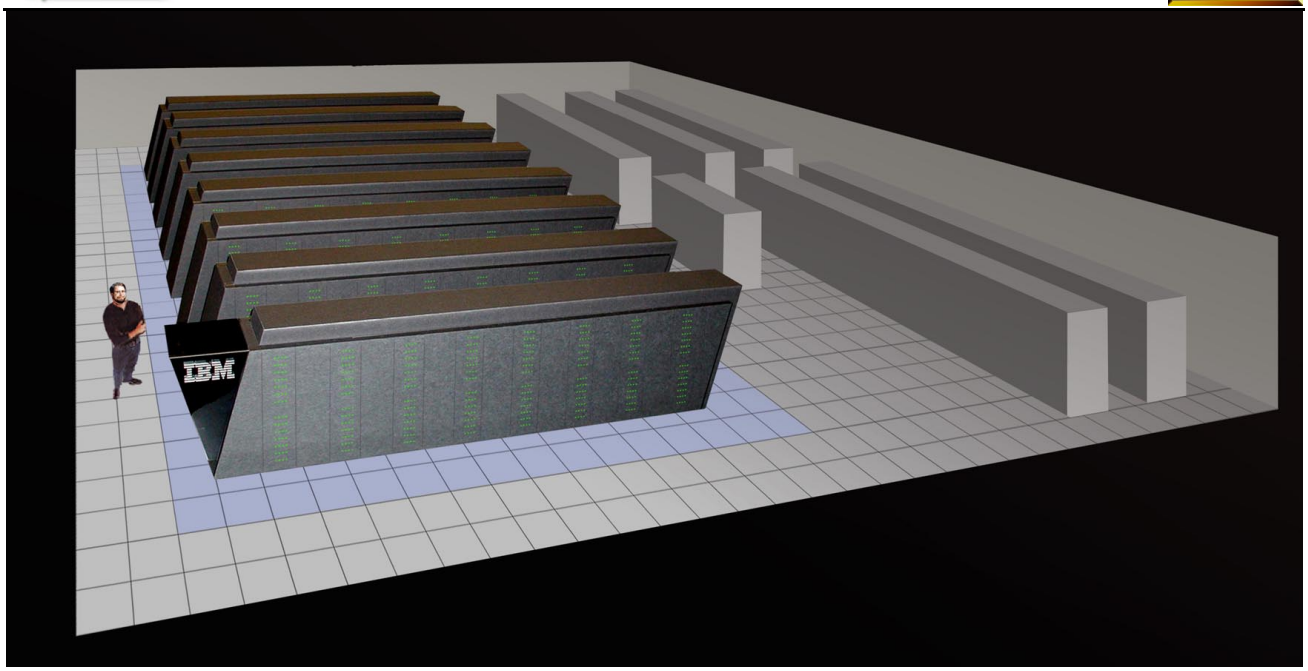

ASCI and IBM are creating BlueGene/L, a new supercomputer design with nearly 10X the peak speed, in one-fifth the area, and using only a fraction of the electrical power required by other supercomputers. IBM BlueGene/L is the *HPCWIRE* Editors' Choice for "The Most Innovative HPC Technology in 2003."

External Review Panel Urges Continued Development of BlueGene/L

A distinguished panel of 14 high-end computing experts from academia, government agencies, and other national laboratories met at the Doubletree Berkeley Marina Hotel on July 30-31 to review progress of BlueGene/L. A partnership between IBM Corporation and the National Nuclear Security Administration to build the world's fastest supercomputer in support of stockpile stewardship science, BlueGene/L is targeted for peak compute capability in excess of 360 teraflops (i.e., 360 trillion operations per second). A full day of technical presentations from IBM and LLNL documented progress since the first review of the project in February 2001.

The panel notes "impressive progress" in hardware, system software, middleware and early application demonstrations, and "unanimously recommends continuing" with the project. The panel observed that "BlueGene/L represents an important opportunity to substantially advance both the ASCI mission agenda and the course of development of very large-scale machines."

BlueGene/L will be applied to quantitative advances in modeling of materials under extreme conditions by extending the length and time scales of high-fidelity simulations. This will enable simulations on a scale that allow direct comparison with experiments on the National Ignition Facility, in direct support of the Laboratory's stockpile stewardship mission. BlueGene/L will also advance our scaling of applications to large task counts, needed to utilize future petaflop-scale computers.

Contact: *Lynn Kissel*
ASCI Deputy Program Leader, LLNL
925-423-7940
lkissel@llnl.gov